

# LIST

LONG ISLAND SINCLAIR TIMEX GROUP  
INCORPORATING \* NYTSE OF NEW YORK CITY

ISSUE: March

1990

\* NEW YORK TIMEX SINCLAIR ENTHUSIASTS: NEXT MEETING



APRIL 22  
MEETING!!

LIST MEMBERSHIP IS \$15.00. LIBRARY TAPES ARE AVAILABLE, WRITE THE ADDRESS PRINTED BELOW.

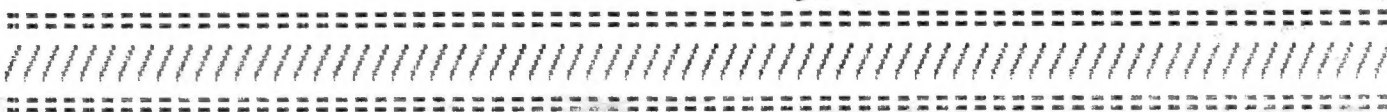
SEE PAGE 12  
FIRSTLOAD

inside

FOR

NEWS-  
MEETING LOCATION

FROM ZX/TS TO 2068



L.I.S.T.  
5 PERI LANE  
VALLEY STREAM, NY  
11581

640690



TO:

Don Lambert JAN/91  
3310 Clover Dr. S.W.  
Cedar Rapids, IA  
52404

FIRST CLASS MAIL  
DATED MEETING NOTICE

UPPER RIGHT  
CORNER OF  
YOUR LABEL  
IS DATE OF  
LAST ISSUE.



# ----- LIST OFFICERS

PRES. HARVEY RAIT  
TRES. ROBERT MALLOY  
REC.SEC. STEVE KAYE  
EDITOR. FRED STERN  
LIBR. TOM SKAPINSKI  
-----

## PLEASE SEND INQUIRIES TO:

LIST  
MR. HARVEY RAIT  
5 PERI LANE  
VALLEY STREAM, N.Y. 11581

## PLEASE SEND SUBMISSIONS TO:

LISTING  
MR. FREDERIC STERN  
214 ROBERTS ST.  
HOLBROOK, N.Y. 11741  
-----

## NYTSE

NYTSE MEETS THE MONDAY AFTER  
THE LIST MEETING AT:  
MISS KIMS RESTAURANT  
PARK AVENUE SOUTH  
BETWEEN 21 ST. AND 22 ST.  
MEETINGS START 7:30 PM.

## ----- COMING EVENTS:

APRIL 22, 1990 LIST MEETING  
APRIL 23, 1990 NYTSE MEETING

## MEETING MINUTES MARCH 11, 1990

HARVEY CALLED THE MEETING TO  
ORDER AT 2:15 PM.

WE RECEIVED A LETTER ANNOUNCING  
A NEW BBS ON LONG ISLAND WHICH  
WILL HAVE A CONFERENCE SECTION  
FOR TIMEX/SINCLAIR USERS.  
A COPY OF THE LETTER IS ON  
PAGE 3 OF THIS NEWSLETTER.

HOWARD CHEGWIDDEN (A SOON TO BE  
NEW MEMBER) ATTENDED THE  
MEETING.

HOWARD CAME FROM N.J. AND HAD  
A NUMBER OF EQUIPMENT PROBLEMS.  
DURING AN IMPROMPTU THINK TANK  
SESSION WE TRIED TO ANSWER  
HOWARD'S QUESTIONS, AND RESOLVE  
HIS EQUIPMENT PROBLEMS.

HOWARD TOLD US OF 2 BOOKS WHICH  
WERE GOOD REFERENCE SOURCES  
WHEN WORKING WITH THE ZEBRA  
DESIGNER SERIES.  
THE PRINT SHOP HANDBOOK  
BY RANDI BENTON AND MARY BALGER.

THE PRINT SHOP PROJECT BOOK  
BY DEBORAH HOMAN AND PHILIP  
SEYER ASSOCIATES.

WE RECEIVED A LETTER ANNOUNCING  
THE SINCLAIR COMPUTER EXPOSITION  
SPONSORED BY S.M.U.G.  
A COPY OF THE LETTER IS AN  
PAGE 4.

OUR CONDOLENCES ARE EXTENDED TO  
EDGER GROSS ON THE RECENT  
PASSING OF HIS MOTHER.

WE RECEIVED NOTICE OF UP COMING  
KEN GORDEN COMPUTER SHOWS.  
SEE PAGE 12 FOR MORE DETAILS.

## DEMONSTRATION

BOB GILDER DEMONSTRATED THE QL  
EPROM BURNER. THIS PERIPHERAL  
IS A P.C. CARD WHICH PLUGS ON  
TO THE QL.  
WE WERE SHOWN HOW THE QL  
BURNS-IN AND VERIFIED AN EPROM.  
THE SYSTEM CAN ALSO COPY PROMS  
TO EPROM.  
THE QL PROGRAM EVEN HAS A BAR  
GRAPH TIMER TO TELL YOU WHEN THE  
BURN-IN IS COMPLETED.

HARVEY READ LETTERS WHICH WERE  
RECEIVED SINCE THE LAST  
MEETING. FRED STERN WILL ANSWER  
THESE CORRESPONDENCE.

## CLASSIFIEDS

THIS CLASSIFIED SECTION IS  
AVAILABLE TO ALL LIST MEMBERS  
FREE OF CHARGE.  
THE ONLY RESTRICTION IS THAT  
IT IS TO BE USED ONLY FOR THE  
SEEKING, SELLING OR SWAPPING  
OF SINCLAIR, TIMEX OR MICROACE  
COMPUTER EQUIPMENT, PERIPHERALS  
AND SOFTWARE.  
LISTING, LIST, AND ITS OFFICERS  
DO NOT ENDORSE, WARRANTY, OR  
GUARANTEE ANY OF THE ITEMS  
LISTED IN THIS CLASSIFIED  
SECTION

I AM INTERESTED IN A DISC.  
DRIVE CONTROLLER FOR THE TS1000.  
CONTACT FRED STERN AT THE  
LISTING ADDRESS ABOVE.

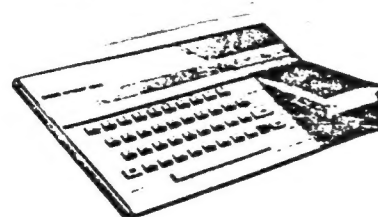
## A FINAL WORD

MY NAME IS FRED STERN AND I AM  
THE EDITOR OF THIS EDITION OF  
LISTING.

THANK YOU GO TO TOM SKAPINSKI  
FOR HIS ASSISTANCE.

THE LIST OF NAMES AND ADDRESSES  
OF OUR MEMBERSHIP COULD NOT BE  
PLACED IN THIS EDITION OF  
LISTING AS PREVIOUSLY ANNOUNCED.  
IT WILL BE IN NEXT MONTHS  
NEWSLETTER.

THE NEXT EDITION OF LISTING WILL  
ALSO HAVE THE LONG AWAITED  
RESULTS OF OUR QUESTIONNAIRE.  
SEE YOU ALL AT THE NEXT MEETING.





7 Atkinson Lane  
Coram, NY 11727  
March 11, 1990

L.I.S.T.,

Very soon, I will be operating a BBS from my house. Although this BBS is primarily for IBM users, I will also have a separate conference section for Macintosh users, and am willing to have a third conference section for Timex and L.I.S.T.

The name of this BBS is "*The Late Night BBS*" (T.L.N. BBS), and, hence its name, will be operating everyday from 10:00pm to 7:00am ET. The BBS is located in Coram, which is in the Western Suffolk calling area.

If you are interested in having a Timex/L.I.S.T. section on this board, please let me know.

Sincerely,

*Keith Skapinski*  
Keith Skapinski  
Ph: 516-732-1825



#### More About This BBS



This BBS will have a general (main) section, plus four conferences. They are *IBM*, *Macintosh*, *Timex/L.I.S.T.*, and *classified ads*. There will be download directories for the IBM, Macintosh, and Timex.

The Timex conference section will be capable of having a news file, bulletins, and a large message base. For those unfamiliar with this, the news file is displayed when a user enters the conference from the main section and usually contains new news or information and is updated fairly often. The bulletins are usually not changed very often. There will also be a message base which can be used for asking and answering questions, carrying on conversations, or sending electronic mail to other users.

Of course, it would not be feasible for me to set up the news files and bulletin files for the Timex conference, so a volunteer from L.I.S.T. would be needed. I would need a typed news file and any bulletins which you want on the BBS. I will enter them into the BBS. Since there is often new news, you can either upload an ASCII news file to me or send me the text in the mail. Please try to limit new news files to no more than one or two a month and update bulletins only when necessary.

If you are interested or having any questions, please call me at 516-732-1825.



# S.M.U.G. Presents

The 1990 **SINCLAIR COMPUTER** Exposition

## MILWAUKEE

## WISCONSIN

June 2 & 3 / Banquet Friday Night June 1  
**SEMINARS, DOOR PRIZES, SWAP SHOP,  
 SOFTWARE, PERIPHERALS, HARDWARE,  
 AND LOTS OF OTHER STUFF**

Location

WAUKESHA HOLIDAY INN (414) 786-0460

Hwy 18 & I94 Waukesha, WI 53186

There will be a **SNUG** meeting Saturday Night June 2, 1990

**Ticket Information:**

	<u>in advance</u>	<u>at the door</u>	
One day	: \$ 4.00	\$ 5.00	
Both days	: \$ 7.00	\$ 9.00	
Banquet	: \$16.00	\$16.00	Limited seating
Table	: \$25.00 (incl. 2 day badge)	\$25.00	Limited table space

Tables are 6 feet by 30 inches

For **MORE INFORMATION** contact

Bill Heberlein

Neal Schultz

5052 N. 91st Street

or

call 7 - 10pm

Milwaukee, WI 53225

(414) 353-4522



for **RESERVATIONS** mail to:

Expo Reservations

P.O. Box 101

Butler, WI 53007



Detach and Mail

Name \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Please reserve \_\_\_\_\_ one day badge @ \$ 4.00 each = \$ \_\_\_\_\_

Please reserve \_\_\_\_\_ two day badges @ \$ 7.00 each = \$ \_\_\_\_\_

Please reserve \_\_\_\_\_ Banquet tickets @ \$16.00 each = \$ \_\_\_\_\_

Please reserve \_\_\_\_\_ 6' x 30" tables @ \$25.00 each = \$ \_\_\_\_\_

I have included a check/money order for total = \$ \_\_\_\_\_

TRY THIS TRY THIS TRY THIS

# FIRSTLOADER--FROM ZX/TS TO 2068

Syntax commissioned a custom program, written by David Ornstein, to convert your existing programs for the 2068 or 48K Spectrums.

This program translates input bytes from ZX/TS tapes to an equal number of output bytes in your 2068 that you must edit, and then save. Codes & program control structures differ in the two designs, making functionally identical programs use different numbers of bytes.

Create the program in two parts--the translation table shown here and the executable portion.

[illegible]

Direct tables, such as this, consist of an address, derived from the input code, containing an entry that equals a desired output code. Our table address consists of the CODE of the ZX/TS character +44000. Entries consist of 2068 codes to produce the character, command, or function. If no one corresponding code exists, we pick a substitute to hold the space. Then we edit the translated program as needed.

Use the table shown to produce the translator as Syntax tested it. We suggest you fill the table area with code 127 as you begin. That way, listing the table produces (C) symbols if you miss any entries.

You can modify the translation table to substitute any byte. Add 44000 to the ZX/TS character code, then POKE that address in your 2068 with the code you want the program to contain. Codes below 32 trigger errors in the display.

For example, say you want SLOW changed to REM. You take 228, the ZX/TS code for SLOW, add 44000, and POKE 44228,234--the 2068 REM code.

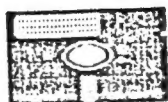
You can enter the executable code in whatever form you find convenient--we've provided both hex and decimal listings--but only the assembler listing is annotated.

Save the 2068 program using  
SAVE"FIRSTLOADR"CODE 44000,1250.  
Make several copies & VERIFY each.

To use the tape, CLEAR 43999, then LOAD "FIRSTLOADR" CODE (enter). When the 2068 displays 0 OK, 0:1 position your ZX/TS tape in the 5-second quiet spot. Activate the loader by typing RAND USR 45000, and observe the red and black stripes in the border area. Then start the ZX/TS tape and observe the stripes again as they change width, indicating ones and zeros in the incoming data.

You will need a lower volume setting than if you were loading to a ZX/TS from the same recorder. You may find a Winky board eases loading. In some cases a 0.2 uF capacitor in series with the center





conductor of the ear cord and a 1k resistor shunting the 2068 ear jack permits a wider range of volume settings for the ZX/TS tapes.

When the converter finds the end of the VARS area on the tape it switches from load to convert. At completion, your 2068 will display 0 OK, 0:1. LIST your program and look for junk. If your translation looks OK, save it to a 2068 tape before you proceed. If the screen fills with garbage, or you get no listing, or LOADING of the ZX/TS tape stops early, type NEW, then try a different volume setting.

Edit the 2068 version to account for differences in comments and codes. Of course you can also add color functions to the 2068 program thus created.

Not all keywords translate sensibly--check your output list for the following:

Keyword	Action
CHRS	Change char code
CODE	Change compared value
FAST	Delete SPACE
PAUSE 0	Delete or use PAUSE 1
PEEK	Change address
PLOT	Reprogram
POKE	Change address, data
UNPLOT	Reprogram SPACE
USR	Change address
SCROLL	Delete SPACE or use PRINT
SLOW	Delete SPACE
Shift Q	Change SPACE to ""

Also, the program removes all ZX/TS inverse characters, substituting normal characters, and translates the half-tone character graphics to solid blacks of the same shape.

After editing, save the latest updated and enhanced program for use with the 2068.

By modifying the translation table, you can substitute user-defined graphics as you convert.

You can purchase this program on tape for \$19.95 ppd from E-Z Key, Suite 75-STX 711 Southern Artery, Quincy, MA 02169. Call 617/773-1187 to use VISA or MC.

This table shows addresses to POKE, in steps of five, with the values reading left-to-right for the 5 successive locations. POKE them manually or write a loop to advance the address automatically. These decimal codes correspond to the hexadecimal assembly listing on the following pages.

400000	0000	00	176	000	000
400005	1700	00	7	000	1100
400010	1000	00	051	000	000
400015	1700	00	140	1700	0001
400020	0007	00	00	000	1000
400025	0017	00	00	000	0004
400030	0034	00	007	000	0000
400035	001	00	110	1004	0004
400040	000	00	000	1700	000
400045	1700	00	40	000	000
400050	0000	00	170	000	100
400055	0000	00	001	000	40
400060	0000	00	000	000	000
400065	0000	00	000	000	000
400070	0000	00	000	000	000
400075	0000	00	000	000	000
400080	0000	00	000	000	000
400085	0000	00	000	000	000
400090	0000	00	000	000	000
400095	0000	00	000	000	000
400100	0000	00	000	000	000
400105	0000	00	000	000	000
400110	0000	00	000	000	000
400115	0000	00	000	000	000
400120	0000	00	000	000	000
400125	0000	00	000	000	000
400130	0000	00	000	000	000
400135	0000	00	000	000	000
400140	0000	00	000	000	000
400145	0000	00	000	000	000
400150	0000	00	000	000	000
400155	0000	00	000	000	000
400160	0000	00	000	000	000
400165	0000	00	000	000	000
400170	0000	00	000	000	000
400175	0000	00	000	000	000
400180	0000	00	000	000	000
400185	0000	00	000	000	000
400190	0000	00	000	000	000
400195	0000	00	000	000	000
400200	0000	00	000	000	000
400205	0000	00	000	000	000
400210	0000	00	000	000	000
400215	0000	00	000	000	000
400220	0000	00	000	000	000
400225	0000	00	000	000	000
400230	0000	00	000	000	000
400235	0000	00	000	000	000
400240	0000	00	000	000	000
400245	0000	00	000	000	000
400250	0000	00	000	000	000
400255	0000	00	000	000	000
400260	0000	00	000	000	000
400265	0000	00	000	000	000
400270	0000	00	000	000	000
400275	0000	00	000	000	000
400280	0000	00	000	000	000
400285	0000	00	000	000	000
400290	0000	00	000	000	000
400295	0000	00	000	000	000
400300	0000	00	000	000	000
400305	0000	00	000	000	000
400310	0000	00	000	000	000
400315	0000	00	000	000	000
400320	0000	00	000	000	000
400325	0000	00	000	000	000
400330	0000	00	000	000	000
400335	0000	00	000	000	000
400340	0000	00	000	000	000
400345	0000	00	000	000	000
400350	0000	00	000	000	000
400355	0000	00	000	000	000
400360	0000	00	000	000	000
400365	0000	00	000	000	000
400370	0000	00	000	000	000
400375	0000	00	000	000	000
400380	0000	00	000	000	000
400385	0000	00	000	000	000
400390	0000	00	000	000	000
400395	0000	00	000	000	000
400400	0000	00	000	000	000
400405	0000	00	000	000	000
400410	0000	00	000	000	000
400415	0000	00	000	000	000
400420	0000	00	000	000	000
400425	0000	00	000	000	000
400430	0000	00	000	000	000
400435	0000	00	000	000	000
400440	0000	00	000	000	000
400445	0000	00	000	000	000
400450	0000	00	000	000	000
400455	0000	00	000	000	000
400460	0000	00	000	000	000
400465	0000	00	000	000	000
400470	0000	00	000	000	000
400475	0000	00	000	000	000
400480	0000	00	000	000	000
400485	0000	00	000	000	000
400490	0000	00	000	000	000
400495	0000	00	000	000	000
400500	0000	00	000	000	000
400505	0000	00	000	000	000
400510	0000	00	000	000	000
400515	0000	00	000	000	000
400520	0000	00	000	000	000
400525	0000	00	000	000	000
400530	0000	00	000	000	000
400535	0000	00	000	000	000
400540	0000	00	000	000	000
400545	0000	00	000	000	000
400550	0000	00	000	000	000
400555	0000	00	000	000	000
400560	0000	00	000	000	000
400565	0000	00	000	000	000
400570	0000	00	000	000	000
400575	0000	00	000	000	000
400580	0000	00	000	000	000
400585	0000	00	000	000	000
400590	0000	00	000	000	000
400595	0000	00	000	000	000
400600	0000	00	000	000	000
400605	0000	00	000	000	000
400610	0000	00	000	000	000
400615	0000	00	000	000	000
400620	0000	00	000	000	000
400625	0000	00	000	000	000
400630	0000	00	000	000	000
400635	0000	00	000	000	000
400640	0000	00	000	000	000
400645	0000	00	000	000	000
400650	0000	00	000	000	000
400655	0000	00	000	000	000
400660	0000	00	000	000	000
400665	0000	00	000	000	000
400670	0000	00	000	000	000
400675	0000	00	000	000	000
400680	0000	00	000	000	000
400685	0000	00	000	000	000
400690	0000	00	000	000	000
400695	0000	00	000	000	000
400700	0000	00	000	000	000
400705	0000	00	000	000	000
400710	0000	00	000	000	000
400715	0000	00	000	000	000
400720	0000	00	000	000	000
400725	0000	00	000	000	000
400730	0000	00	000	000	000
400735	0000	00	000	000	000
400740	0000	00	000	000	000
400745	0000	00	000	000	000
400750	0000	00	000	000	000
400755	0000	00	000	000	000
400760	0000	00	000	000	000
400765	0000	00	000	000	000
400770	0000	00	000	000	000
400775	0000	00	000	000	000
400780	0000	00	000	000	000
400785	0000	00	000	000	000
400790	0000	00	000	000	000
400795	0000	00	000	000	000
400800	0000	00	000	000	000
400805	0000	00	000	000	000
400810	0000	00	000	000	000
400815	0000	00	000	000	000
400820	0000	00	000	000	000
400825	0000	00	000	000	000
400830	0000	00	000	000	000
400835	0000	00	000	000	000
400840	0000	00	000	000	000
400845	0000	00	000	000	000
400850	0000	00	000	000	000
400855	0000	00	000	000	000
400860	0000	00	000	000	000
400865	0000	00	000	000	000
400870	0000	00	000	000	000
400875	0000	00	000	000	000
400880	0000	00	000	000	000
400885	0000	00	000	000	000
400890	0000	00	000	000	000
400895	0000	00	000	000	000
400900	0000	00	000	000	000
400905	0000	00	000	000	000
400910	0000	00	000	000	000
400915	0000	00	000	000	000
400920	0000	00	000	000	000
400925	0000	00	000	000	000
400930	0000	00	000	000	000
400935	0000	00	000	000	000
400940	0000	00	000	000	000
400945	0000	00	000	000	000
400950	0000	00	000	000	000
400955	0000	00	000	000	000
400960	0000	00	000	000	000
400965	0000	00	000	000	000
400970	0000	00	000	000	000
400975	0000	00	000	000	000
400980	0000	00	000	000	000
400985	0000	00	000	000	000
400990	0000	00	000	000	000
400995	0000	00	000	000	000

On the following pages you'll find FIRSTLOADER code, assembled to location 45000. This excludes the translation table. Read columns as follows: hex address, hex code for instruction, assembler line number (ignore it), assembler label (for human use), then a Z80 instruction mnemonic or assembler pseudo-operator,

AFC8	00100	ORG	45000
AFC8 CD3CB0	00110	CALL	FNAME
AFCB CDDEAF	00120	CALL	LOADER
AFCE 0607	00130	LD	B,7
AFD0 3676	00140 INCASE	LD	(HL),118; ZX/TS NL
AFD2 23	00150	INC	HL
AFD3 10FB	00160	DJNZ	INCASE
AFD5 CD59B0	00170	CALL	XLATE
AFD8 CD8EB0	00180	CALL	MAKPRG
AFDB C9	00190	RET	
AFDC CF	00200 ERR3	RST	8
AFDD 03	00210	DEFB 3	
C014	00220 E1LINE	EQU	49172; ZX/TS E-LINE + 32K
C015	00230 E2LINE	EQU	49173
AFDE 2109C0	00240 LOADER	LD	HL,49161; ZX/TS VERSN + 32K
AFE1 110C00	00250	LD	DE,12
AFE4 19	00260	ADD	HL,DE ; SKIP 12 BYTES HL PT 49173
AFE5 36FE	00270	LD	(HL),00FEH; LOAD AT LEAST 256 BYTES
AFE7 A7	00280	AND	A
AFE8 ED52	00290	SBC	HL,DE
AFEA CDFBAF	00300 LL36	CALL	INBYTE ; GET BYTE IN C
AFED 71	00310	LD	(HL),C ; STORE THE ZX/TS BYTE
AFEE 7C	00320	LD	A,H
AFEF FE00	00330	CP	0
AFF1 28E9	00340	JR	Z,ERR3
AFF3 CD4BB0	00350	CALL	EFIX ; IF HL=E2LINE ADD 128 TO HI
AFF6 CD2EB0	00360	CALL	ENDBYT ; BYTE (IND HL). LAST BYTE?
AFF9 18EF	00370	JR	LL36
AFFB 0E01	00380 INBYTE	LD	C,1
AFFD 0600	00390 LL3	LD	B,0
AFFF CD44B0	00400 LL32	CALL	BORDER ; FLIP COLOR
B002 3E7F	00410	LD	A,007FH
B004 DBFE	00420	IN	A,(00FEH)
B006 1F	00430	RRA	
B007 3031	00440	JR	NC,LL7 ; IF BREAK IS PRESSED
B009 17	00450	RLA	
B00A 17	00460	RLA	
B00B 17	00470	RLA	
B00C 3802	00480	JR	C,LL38 ; IF HAVE A SIGNAL
B00E 18EF	00490	JR	LL32
B010 D5	00500 LL38	PUSH	DE
B011 1E94	00510	LD	E,148
B013 061A	00520 LL4	LD	B,26
B015 1D	00530 LL5	DEC	E
B016 DBFE	00540	IN	A,(00FEH)
B018 17	00550	RLA	
B019 17	00560	RLA	
B01A CB7B	00570	BIT	7,E
B01C 7B	00580	LD	A,E
B01D 38F4	00590	JR	C,LL4
B01F 10F4	00600	DJNZ	LL5
B021 D1	00610	POP	DE
B022 2004	00620	JR	NZ,LL6
B024 FE56	00630	CP	86
B026 30D5	00640	JR	NC,LL3



# LIST. LIST.

B028 3F	00650	LL6	CCF	
B029 CB11	00660		RL	C
B02B 30D0	00670		JR	NC,LL3
B02D C9	00680		RET	
B02E 23	00690	ENDBYT	INC	HL ; WAS THAT THE LAST BYTE?
B02F EB	00700		EX	DE,HL
B030 2A14C0	00710		LD	HL,(E1LINE); IS HL PAST IND E1LINE?
B033 37	00720		SCF	
B034 ED52	00730		SBC	HL,DE
B036 EB	00740		EX	DE,HL
B037 D0	00750		RET	NC
B038 C1	00760		POP	BC ; GO BACK TO MAIN ROUTINE
B039 C9	00770		RET	
B03A CF	00780	LL7	RST	8
B03B 0C	00790		DEFB 12	
B03C CDFBAF	00800	FNAME	CALL	INBYTE ; LOOK FOR 1ST INVERSE CHAR
B03F CB79	00810		BIT	7,C
B041 28F9	00820		JR	Z,FNAME; KEEP LOOKING
B043 C9	00830		RET	; NOW START LOADING ZX CODE
B044 78	00840	BORDER	LD	A,B ; FLIP BORDER COLOR 2 OR 0
B045 EE02	00850		XOR	2
B047 D3FE	00860		OUT	(00FEH),A
B049 47	00870		LD	B,A
B04A C9	00880		RET	
B04B 1115C0	00890	EFIX	LD	DE,E2LINE; DID I JUST LOAD TO E2LINE
B04E 7A	00900		LD	A,D
B04F BC	00910		CP	H ; COMPARE HI BYTE
B050 C0	00920		RET	NZ
B051 7B	00930		LD	A,E
B052 BD	00940		CP	L ; COMPARE LO BYTE
B053 C0	00950		RET	NZ
B054 7E	00960		LD	A,(HL)
B055 C680	00970		ADD	A,128 ; ADD 32K
B057 77	00980		LD	(HL),A
B058 C9	00990		RET	
B059 217DC0	01000	XLATE	LD	HL,49277; 1ST BYTE OF 1ST LINE #
B05C 7E	01010	LXL1	LD	A,(HL) ; AT 16509+32K
B05D FE76	01020		CP	118 ; IS IT 1ST NL IN ZX D-FILE
B05F C8	01030		RET	Z ; IF SO, YOU'RE DONE
B060 CD65B0	01040		CALL	LINE
B063 18F7	01050		JR	LXL1
B065 110400	01060	LINE	LD	DE,4 ; SKIP LINE # & LENGTH
B068 19	01070		ADD	HL,DE
B069 3E7F	01080	LLIN1	LD	A,007FH ; TEST BREAK ON 2068
B06B DBFE	01090		IN	A,(00FEH); GET CHAR IN ACCUM
B06D 1F	01100		RRA	
B06E 30CA	01110		JR	NC,LL7 ; EXIT IF BREAK PRESSED
B070 7E	01120		LD	A,(HL) ; GET BYTE
B071 FE7E	01130		CP	126 ; CHECK FOR ZX/TS SLUG
B073 2008	01140		JR	NZ,LLIN2; GET CODE FROM TABLE
B075 360E	01150		LD	(HL),14 ; SUBST 2068 SLUG
B077 110600	01160		LD	DE,6 ; SKIP SLUG + 5 BYTES
B07A 19	01170		ADD	HL,DE
B07B 18EC	01180		JR	LLIN1 ; DO IT AGAIN



B07D E5	01190	LLIN2	PUSH	HL	; STORE THE BYTE ADDRESS
B07E 11E0AB	01200		LD	DE,44000;	TABLE START ADDRESS
B081 2600	01210		LD	H,0	; PUT ZX/TS CHAR CODE IN HL
B083 6F	01220		LD	L,A	
B084 19	01230		ADD	HL,DE	; ADDRESS OF BYTE IN TABLE
B085 7E	01240		LD	A,(HL)	; GET BYTE FROM TABLE TO A
B086 E1	01250		POP	HL	; RECALL BYTE ADDRESS
B087 77	01260		LD	(HL),A	; PUT NEW CODE IN OLD ADDRESS
B088 23	01270		INC	HL	
B089 FE0D	01280		CP	13	; CHECK FOR 2068 NL
B08B 20DC	01290		JR	NZ,LLIN1;	NO, DO IT AGAIN
B08D C9	01300		RET		; FINISHED THAT LINE
B08E 117DC0	01310	MAKPRG	LD	DE,49277;	APPEND PROG TO 2068 CONTENT
B091 A7	01320		AND	A	
B092 ED52	01330		SBC	HL,DE	; HL PT 1ST BYTE OF D-FILE
B094 44	01340		LD	B,H	; BC = NO. BYTES IN PROGRAM
B095 4D	01350		LD	C,L	
B096 C5	01360		PUSH	BC	; SAVE SIZE OF PROG
B097 2A4B5C	01370		LD	HL,(23627);	ADDRESS OF 2068 VARS
B09A 2B	01380		DEC	HL	
B09B ED5B535C	01390		LD	DE,(23635);	ADDR OF 2068 BASIC PROG
B09F D5	01400		PUSH	DE	; SAVE PROG SYSVAR
B0A0 CDBB12	01410		CALL	4795	; CALL ROM INSERT-USE 5717 ON
B0A3 D1	01420		POP	DE	; SPECT-RESTORE PROG SYSVAR
B0A4 ED53535C	01430		LD	(23635),DE	
B0A8 C1	01440		POP	BC	; BYTE COUNT OF PROG
B0A9 23	01450		INC	HL	
B0AA 23	01460		INC	HL	
B0AB EB	01470		EX	DE,HL	; DE=DATA DESTINATION
B0AC 217DC0	01480		LD	HL,49277;	START OF STUFF TO MOVE
B0AF EDB0	01490		LDIR		; BLOCK MOVE
B0B1 C9	01500		RET		

BORDER B044	00840	00400	LL36	AFEA	00300	00370
E1LINE C014	00220	00710	LL38	B010	00500	00480
E2LINE C015	00230	00890	LL4	B013	00520	00590
EFIX B04B	00890	00350	LL5	B015	00530	00600
ENDBYT B02E	00690	00360	LL6	B028	00650	00620
ERR3 AFDC	00200	00340	LL7	B03A	00780	00440 01110
FNAME B03C	00800	00110 00820	LLIN1	B069	01080	01180 01290
INBYTE AFFB	00380	00300 00800	LLIN2	B07D	01190	01140
INCASE AFD0	00140	00160	LOADER	AFDE	00240	00120
LINE B065	01060	01040	LXL1	B05C	01010	01050
LL3 AFFD	00390	00640 00670	MAKPRG	B08E	01310	00180
LL32 AFFF	00400	00490	XLATE	B059	01000	00170

Only one change will make this program work with a 48K Spectrum as well. At B0A0H (45216 decimal), we call a ROM routine located at 4795 in the TS2068 and at 5717 in the Spectrum. These routines create an empty space, but you must fill it.

Most of this code is self-contained. Only the routine XLATE, located at 45145, passes a value to the code for MAKPRG. If you modify code, restore the value held in HL on return from address 45151 prior to calling MAKPRG.



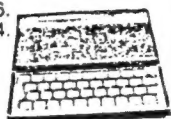
# NEWS-MONGER

Hear the latest from  
Franz Zym  
and his  
ZX-81.

NEWSMONGER is a menu-driven program for the ZX-81 16K to show a text in giant letters.

The menu has nine options:

- Character size 8 by 8.
- Character size 16 by 16.
- Character size 16 by 24.
- User-defined graphics.
- Fill character.
- Speed.
- Input text.
- Top line number.
- Save.



The almost entirely Basic program uses a machine-code routine held in line 0. The machine code is only 576 bytes long. The text may contain unshifted characters, inverse — shifted — function — and graphics.

The function characters plus the shifted character H represent the lower case characters. The shifted characters A, S, D, F, G, W, E, R, T, Y, 2, 3 and 4 are reserved for user defined graphics — UDG's. You can define eg., the character "!" and its inverse, which do not belong to the standard character set. When you don't like the lower case character

set, you are also able to alter this.

In total you have 26 + 13 UDG's. You can't alter the "shifted" character Q because this character is used in string input. When you are not familiar with UDG's, read the article in *Your Computer* April 1984.

The data of the standard ZX-81 character set begin in the Rom at address \$1E00 (7680 dec.) and end at address \$1FFF (8191 dec.) Only the data of the characters with code 0-63 are in the Rom.

The data of the UDGs begin at address 16760; it starts with the data of the "shifted" character Q — code 192. Then the data of the "function" characters with code 193-215, followed by the "shifted" characters with code 216-229. The data of the "function" characters M, B and T with code 64-66 are placed after the "shifted" characters.

You have the option to alter the fill character of the giant letter, the speed and the top line number. The fill character can be a "unshifted" character, a inverse — or a



graphic. Address 16690 holds the code.  
PEEK(16751)/2-1

gives you the speed on a scale 0-9; 0 is fast, 9 is slow. 5 is the most "readable" speed. The top line number can vary for option 1 from 1-17, for option 2 from 1-9 and for option 3 the top line number will be 1. The program checks for invalid values.

There are different ways to save text. First you can run the program and enter your text in option 7:

"TEXT" N/L ZS

holds your text. Returning to option 7 and typing new text the old text is rubbed out. To prevent the loss of the old string variable Z\$, you have to break out during input mode by

(continued on next page)

## Hexdump.

```

16514: 0000000000000000 = 0
16522: 3F0D218A40221640 = 431
16530: CD1C11234E234623 = 503
16538: C5E5CD8B022CE1C1 = 1282
16546: C0C5E57EFE40280A = 1112
16554: FE412806FE422802 = 727
16562: 180306A680322140 = 474
16570: CBBF060816005F21 = 558
16578: 00001910FD3A2140 = 449
16586: FEC0380511783F18 = 731
16594: 0311001E19CDEA40 = 578
16602: E123C10D20BA78FE = 1058
16610: 0028A7050E0018B0 = 426
16618: E5118240D50010800 = 662
16626: EDB03A2140CB7F28 = 938
16634: 0FCB77200B118240 = 591
16642: 06081A2F121310FA = 390
16650: 0E080608C0506012A = 282
16658: 0C40112200ED5211 = 463
16666: 21001910FAC1227B = 674
16674: 4011210019D11ACB = 577
16682: 7F171213D528033E = 505
16690: 807710EDD1C50601 = 913
16698: C52A3440CB4520F9 = 908
16706: CD5641CD6D41C110 = 944
16714: EFC10D118240D520 = 901
16722: B9D1E1C92A784023 = 1084
16730: 233E08545D23011F = 349
16738: 00EDB02B7023233D = 699
16746: C818F021A00C2B7C = 836
16754: B520FBC905050024 = 711
16762: 2400000000000000 = 36
16770: 3E4040403E000000 = 316
16778: 7C42427C40400505 = 518
16786: 0505050505050006 = 38
16794: 0008080808000004 = 36

```

```

16802: 0004040404380020 = 104
16810: 2438242222000000 = 196
16818: 3E42423E00200000 = 260
16826: 4949494936000000 = 348
16834: 3C427C403C000000 = 374
16842: 3C023E423E000000 = 252
16850: 3C403C023C000002 = 248
16858: 023E42423E000000 = 258
16866: 3E0408103E000000 = 152
16874: 2214081422000000 = 116
16882: 3E20202020000040 = 254
16890: 407C42424200000E = 400
16898: 107C101010000000 = 188
16906: 3E42423E023C0000 = 318
16914: 3C4242423C000020 = 350
16922: 202020201C000000 = 156
16930: 2222120C04180000 = 126
16938: 222222221E000000 = 168
16946: 3C22222222000000 = 196
16954: 2222221408000600 = 258
16962: 00000000000000E0 = 224
16970: E00000000000F0F0 = 704
16978: F07E7E7E7E000505 = 754
16986: 0505050505050505 = 40
16994: 0505050505050000 = 30
17002: 000000000000E000 = 224
17010: 0505050505050505 = 40
17018: 0505050505050010 = 46
17026: 1010100010000505 = 74
17034: 0505050505050024 = 66
17042: 0024242404380505 = 178
17050: 0505050505050505 = 40
17058: 0505050505050010 = 46
17066: 7C1010100E000040 = 250
17074: 407C42427C000000 = 444
17082: 76494949000505 = 420

```

(continued from previous page)

rubbing out the first quote and then press "shifted" A N/L. Then you type:

LET AS = Z\$ N/L

and the old text is saved in the variables area. You return to the Basic program by typing:

GOTO O N/L

Do not use the command Run because this command will also clear the variables area, and that is what you don't want!

Second: you can break out during input mode to enter different string variables. You can use the string variables AS-X\$ and subscripted string variables with no limitations.

## You can rub out the quotes

Do not use Y\$ and Z\$ because the program uses these string variables. You can type eg.: LET AS = "TEXT" N/L, LET BS = "TEXT" N/L, DIM AS(10,10) N/L, LET AS(1) = "TEXT" N/L

You return to the menu by typing:  
—GOTO O N/L

When you return to option 7, you can rub out the quotes and type eg.:

AS + BS N/L

strings which you have entered before. Z\$ holds then

AS + BS

You can also type: Text, jump over the quote and type:

+ AS N/L

Z holds then

"TEXT" + AS

When you want to save on tape the string variables or your UDGs, option 9 gives you the opportunity. After typing: 9 N/L during menu mode, the program waits for pressing a key. It gives you the time to set up the tape recorder.

When you want to break out the machine code routine during option 1-3, just press a key a while. It is advisable not to use the "break" key because then you also break out the Basic program. Then it is a habit to type: Run N/L, but then you will clear the variables

### Hexloader.

```
99 REM HEX LOADER
100 PRINT "START ADDRESS"
110 INPUT S
120 PRINT "FINISH ADDRESS"
130 INPUT F
140 FOR N=3 TO F STEP 3
150 LET T=0
160 PRINT N: " - "
170 INPUT AS
180 PRINT AS: " = "
190 INPUT TOT
200 PRINT TOT
210 LET Z=0
220 FOR K=1 TO LEN AS STEP 2
230 LET C=(CODE AS(K)-28)/16+CO
240 AS(K+1)=28
250 LET T=T+C
260 POKE N+Z,C
270 LET Z=Z+1
280 NEXT K
290 IF TOT=T THEN GO TO 310
300 PRINT "ERROR - PLEASE INPUT
310 GO TO 150
320 NEXT N
```

area. Use always the command Goto O, and you will get the menu again with the variables still present.

Before you can enter the machine code, you have to make a line with a Rem containing at least 576 bytes. To create this Rem first enter line 1 with a Rem containing 91 dots. Check the number with

PEEK(16511) + PEEK(16512) x 256

The number must be 93:

REM + 91 dots + N/L

Then using the Edit alter the line number so that you become 6 lines with 91 dots. Then type:

POKE 16514,118 N/L

POKE 16515,118 N/L

POKE 16510,0 N/L

POKE 16511,66 N/L

and you have created line 0 with a Rem containing 567 bytes.

PEEK(16514 + 576)

must be 118, check this! Then enter the Basic program hexload. The startaddress is 16514, the endaddress 17089. Save the program on tape after entering the hexadecimal numbers.

Then enter:

LET Z\$ = "TEXT" N/L, LET L = USR 16524 N/L

and the program should run. Pressing a key while will bring you back to Basic. When the program doesn't work, check the addresses 16514-17089.

### Basic program.

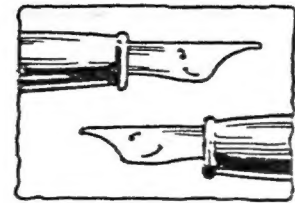
```
1 REM *****
2 REM + (C) FRANK ZIJM +
3 REM + NEWSMONGER +
4 REM *****
5 SLOW
6 PRINT "MENU"
7 PRINT "A CHARACTER SIZE 8x8"
8 PRINT "B CHARACTER SIZE 16x"
9 PRINT "C CHARACTER SIZE 16x"
10 PRINT "D USER DEFINED GRAPH"
11 PRINT "E FILL CHARACTER"
12 PRINT "F SPEED"
13 PRINT "G INPUT TEXT"
14 PRINT "H TOP LINE NUMBER"
15 PRINT "I SAVE"
16 PRINT "J SUP OPTION"
17 DIM Y$(1)
18 INPUT Y$
19 IF Y$="1" OR Y$="9" THEN GO
20 TO 150
21 CLS
22 IF Y$="9" THEN GOTO 9000
23 GO SUB UAL Y$+1000
24 CLS
25 GOTO 20
26 POKE 1669,1
27 POKE 1670,33
28 POKE 1671,99
29 LET L=USR 16524
30 RETURN
31 POKE 1669,2
32 POKE 1670,86
33 IF PEEK 16558/9 THEN POKE 1
34 6555,9
35 POKE 1670,16
36 LET L=USR 16524
37 RETURN
38 POKE 1669,2
39 POKE 1670,99
40 POKE 1671,1
41 POKE 1672,24
42 LET L=USR 16524
43 RETURN
44 PRINT "YOU CAN DEFINE YOUR
45 OWN GRAPHIC."
46 PRINT "FOR UDG ARE THE ""SH
47 IFTE""
48 PRINT "CHARACTERS A.S.D.F.G
49 H.U.E.R.T.Y."
50 PRINT "2,3 AND 4 AVAILABLE.Y
51 OU CAN ALSO""
52 PRINT "ALTER THE LOWER CASE
53 CHARACTERS."
54 PRINT "THEREFOR ARE THE ""F
55 UNCTION"" CHA
56 PRINT "RACTERS PLUS ""SHIFT
57 ED"" H.THE
58 PRINT "EMPTY STRING WILL RE
59 TURN YOU TO""
60 PRINT "THE MENU."
61 PRINT AT 21,0: "SUP OPTION"
62 GO TO 210
63 PRINT "PEEK 16558"
64 DIM Y$(1)
65 INPUT Y$
66 IF Y$="1" THEN RETURN
67 IF Y$="2" AND Y$<" " OR Y$>
68 " " THEN GOTO 5070
69 POKE 1669,0 CODE Y$
70 RETURN
71 PRINT "YOU CAN ALTER THE SP
72 EED.THE""
73 PRINT "PRESENT SPEED ON A S
74 CALE 0-9""PEEK 16751/2-1""
75 PRINT "THE EMPTY STRING WILL
76 L NOT ALTER""
77 PRINT "THE NUMBER."
78 PRINT AT 21,0: "SUP OPTION"
79 GO TO 210
```

```
4120 INPUT Y$
4130 IF Y$=" " THEN RETURN
4140 IF Y$="INKEY$" OR Y$="PI" O
4150 R Y$="AND" THEN GOTO 4160
4160 IF Y$="AT " THEN GOTO 4100
4170 CLS
4180 IF Y$="INKEY$" OR Y$="PI" O
4190 R Y$="AND" THEN LET S=156-3
4200 LET S=S+15224+CODE Y$+8
4210 PRINT "INPUT P FOR A BLACK
4220 SQUARE.THE""
4230 PRINT "EMPTY STRING FOR A S
4240 PACE A DOT""
4250 PRINT "WILL MARK THE PLACE.
4260 INPUT O AT""
4270 PRINT "THE BEGINNING OF A L
4280 INE WILL""
4290 PRINT "PLACE 8 SPACES IN TH
4300 E LINE."
4310 FOR I=1 TO 8
4320 PRINT TAB I:I:
4330 NEXT I
4340 PRINT
4350 FOR I=0 TO 7
4360 PRINT I+1.
4370 LET T=0
4380 FOR J=7 TO 0 STEP -1
4390 INPUT Y$
4400 IF J=7 AND Y$="0" THEN PRIN
4410 T ""
4420 IF J=7 AND Y$="0" THEN GOTO
4430 4120
4440 IF Y$="P" THEN LET T=T+2+J
4450 IF Y$="P" THEN LET Y$=""
4460 IF Y$=" " THEN LET Y$=""
4470 IF Y$<" " AND Y$>" " THEN
4480 GOTO 4330
4490 PRINT Y$
4500 NEXT J
4510 POKE S+I T
4520 PRINT
4530 NEXT I
4540 RETURN
4550 PRINT "YOU CAN FILL THE GIA
4560 NT LETTER""
4570 PRINT "WITH A CHARACTER OF
4580 YOUR CHOICE""
4590 PRINT "THE PRESENT FILL CHA
4600 RACTER""CHAS PEEK 16690""
4610 PRINT "THE EMPTY STRING WILL
4620 L NOT ALTER""
4630 PRINT "THE CHARACTER."
4640 PRINT AT 21,0: "SUP OPTION"
4650 GO TO 210
4660 DIM Y$(1)
4670 INPUT Y$
4680 IF Y$=" " THEN RETURN
4690 IF Y$="2" AND Y$<" " OR Y$>
4700 " " THEN GOTO 5070
4710 POKE 1669,0 CODE Y$
4720 RETURN
4730 PRINT "YOU CAN ALTER THE SP
4740 EED.THE""
4750 PRINT "PRESENT SPEED ON A S
4760 CALE 0-9""PEEK 16751/2-1""
4770 PRINT "THE EMPTY STRING WILL
4780 L NOT ALTER""
4790 PRINT "THE NUMBER."
4800 PRINT AT 21,0: "SUP OPTION"
4810 GO TO 210
```

```
6050 DIM Y$(1)
6060 INPUT Y$
6070 IF Y$=" " THEN RETURN
6080 IF Y$="0" OR Y$="9" THEN GO
6090 TO 6050
6100 POKE 16751,(VAL Y$+1)+2
6110 RETURN
6120 POKE 16418,0
6130 PRINT "YOU CAN ENTER YOUR T
6140 EXT.Z$ IS""
6150 PRINT "USED TO STORE THE IN
6160 PUT.YOU CAN""
6170 PRINT "INPUT CHARACTERS,INU
6180 ERSE""
6190 PRINT "GRAPHICS -,""SHIFTED
6200 " - AND""
6210 PRINT "FUNCTION"" -THE ""
6220 "FUNCTION""
6230 PRINT "CHARACTERS REPRESENT
6240 THE LOWER""
6250 PRINT "CASE CHARACTERS.EXCE
6260 PTION.THE""
6270 PRINT """SHIFTED"" KEY H RE
6280 PRESENT LOWER""
6290 PRINT "CASE U.THE ""SHIFTED
6300 "" KEYS A.S."
6310 PRINT "D.F.G.H.U.E.R.T.Y.2,3
6320 AND 4 ARE""
6330 PRINT "USED FOR UDG.SEE OPT
6340 ION 4."
6350 PRINT "SPEED A-E TO CONT
6360 R""
6370 IF INKEY$=" " THEN GOTO 7130
6380 CLS
6390 POKE 16418,2
6400 PRINT AT 21,0: "SUP TEXT"
6410 INPUT Z$
6420 RETURN
6430 PRINT "YOU CAN CHOOSE THE P
6440 LACE OF THE""
6450 PRINT "TEXT ON THE SCREEN.
6460 FOR OPTION""
6470 PRINT "1 THE TOP LINE CAN U
6480 ARY 1-17."
6490 PRINT "FOR OPTION 2 THE TOP
6500 LINE CAN""
6510 PRINT "VARY 1-9.FOR OPTION
6520 3 THE TOP""
6530 PRINT "LINE WILL BE 1.THE P
6540 RESENT TOP""
6550 PRINT "LINE NUMBER:";PEEK 1
6560 6555;"THE EMPTY STRING""
6570 PRINT "WILL NOT ALTER THE N
6580 UMBER."
6590 PRINT AT 21,0: "SUP OPTION"
6600 GO TO 210
6610 DIM Y$(2)
6620 INPUT Y$
6630 IF Y$=" " THEN RETURN
6640 IF Y$="1" OR VAL Y$+1 OR VAL Y$+17 TH
6650 EN GOTO 2100
6660 POKE 16555,VAL Y$
6670 RETURN
6680 PRINT AT 20,0: "PEEK 4 Y$
6690 "
6700 PRINT "PEEK 16555"
6710 IF INKEY$=" " THEN GOTO 9020
6720 CLS
6730 SAVE "NEWSMONGER"
6740 GOTO 0
```



March 22, 1990



Mr. Fred Stern  
214 Roberts Street  
Holbrook, NY 11741

EDITORS NOTE:  
OUR APRIL MEETING  
WILL BE HELD HERE

*F Stern*  
*Listing Editor*

Dear Fred,

The Woodbury Nursing Home, 8533 Jericho Turnpike, NY, has agreed to allow us to hold our April 22nd LIST meeting in one of their Recreation rooms. In fact, they will provide coffee for our group and stated that we can hold monthly meetings at their facility if we would like.

Ms. Kim Gidia (pronounced Joya) is responsible for recreational activities for their residents and feels that computers may have a therapeutic value for their residents and has asked us for help to guide them in this endeavor. Bob Malloy, Fred Stern and myself will provide computers and provide a demonstration for Ms. Gidia.

Please ATTEND this meeting! Hugo is looking forward to seeing each of you - and perhaps some of you can provide our host with some worthwhile suggestions for them in the use of computers or any other vehicle towards aiding their residents.

\*LIST Meeting - Sunday, April 22nd, 1990 - Woodbury Nursing Home, 8533 Jericho Turnpike, NY. Tel - 516-692-4100.

The best way there is to take any of the major parkways (LIE, No. State or So. State pkwys) to the Seaford/Oyster Bay Expressway heading north and exit at 25A East (Jericho Tpk), for approximately 1.7 miles on Jericho Tpk. When you pass Woodbury Common, the location will be only a few 10ths of a mile further, on the left-hand side of the road. There is ample parking at the rear of the Woodbury Nursing Home.

If you require any additional information, contact me by telephone: 516-541-2271.

Fred, perhaps we could send Ms. Gidia a copy of this LIST newsletter.

Regards

*Bob Gilder*  
Bob Gilder